Health care in Armenia

Economic and sociopolitical problems mean the healthcare system is in transition

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The Soviet domination of the health system in Armenia was such that no traces of pre-Soviet healthcare traditions were discernible at the time of independence in 1991. Rather, the country inherited a highly centralised system. The entire population was guaranteed free medical assistance, regardless of social status, and had access to a comprehensive range of secondary and tertiary care.

Immediately after independence, Armenia faced devastating economic and sociopolitical problems, which led to a decline in health status and put overwhelming strain on the healthcare system.[1] However, the most compelling pressure for the health sector reform was the impossibility of sustaining existing health services in the new economic climate. Armenia was simply not in a position to continue to fund a cumbersome, expensive, and insufficient system and was obliged to devise a broad reform programme.

Despite the radical nature of health sector reform in Armenia, the core organisational structure of the system has undergone very little change. All the hospitals and polyclinics, rural health units (including village health centres), and health posts from the previous system continue to function. Formerly hospitals were nominally accountable to the local administration and ultimately answerable to the Ministry of Health; now they are autonomous and increasingly responsible for their own budgets and management. Local government continues to monitor the care provided, however, and the Ministry of Health retains regulatory functions. The ministry also maintains the network of "san-epid" stations inherited from the Soviet system, ensuring the collection of epidemiological data and a first line response to environmental health challenges or outbreaks of infectious disease. These stations were renamed in 1997 and are now centres of public health and epidemiological surveillance, but many of their rules and regulations are obsolete and need to be revised and upgraded.

By 1997, private, out of pocket payment had become a main source of financing for the healthcare system, and the government set out to establish a state health target programme in which certain services will be provided free to targeted segments of the population. All patients falling into a priority group are to receive an all but comprehensive package of free outpatient and inpatient services. In practice, however, many patients end up paying. Hospitals do not normally provide food, and even vulnerable inpatients continue to be responsible for providing their own meals. Drugs are, in principle, free to inpatients, and outpatients are expected to pay a token fee for them, but most inpatients in priority groups pay for most drugs. The very low prices paid by the state for state funded services have worked to increase under the table payments. These prices are too low to cover costs of services provided, so providers are forced to request payments from patients even when a patient falls within a vulnerable group and is entitled to free health care.

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Market on the Georgia-Armenia border

A fundamental problem in primary care concerns access, which has become excessively difficult for a large segment of the population because of their inability to pay for health care. In Armenia, the sense of individual responsibility for one's health is low. There is widespread misunderstanding or confusion regarding public health services. Health promotion was not particularly developed during Soviet era, and what provision there was collapsed during the post-independence crises and left the country with no established health promotion or education programmes.

The article by von Schoen-Angerer (p 562) presents quite an insight on issues relating to sexually transmitted infections (STI) and mental health in Armenia.[2] The reform strives to address the problems in those fields, and international organisations that bring in Western approaches to settling new and modern standards provide valuable support.

Following recommendations from the World Health Organization, the dermatology and STI prevention centre (which is centralised in Yerevan, with a network in the regions) changed its priorities and regulations. It is now working on improving people's knowledge about sexual health and hygiene and changing their outlook, and establishing simple, symptom based treatment protocols. In Yerevan in January 2004, in collaboration with IntraHealth International (an independent, non-profit organisation that works with local health workers to improve healthcare services and training), the centre ran a four day course on integrated management of sexually transmitted infections for obstetrician-gynaecologists and STI specialists from one of the regions of Armenia and medical faculty members. The course conformed with the unified family medicine curriculum adopted by the Ministry of Health in 2003,[3] and included training on the responsibility of family physicians in the management of sexually transmitted infections and mental health problems, based on international standards.

In 2003, many non-governmental organisations worked together to revise the existing legislation and to elaborate a law on mental health, and in May 2004 the National Assembly of the Republic of Armenia adopted it.[4] This law corresponds to international

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standards and Western approaches and contains articles about rights and responsibilities of patients with mental problems and of physicians. Now Armenia is in a process of implementing of these new approaches into its public health system.

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2 Von Schoen-Angerer T. Understanding health care in the south Caucasus: examples from Armenia. *BMJ* 2004;329:562-5.
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Treating hypertension with guidelines in general practice

Patients decide how low they go, not targets

Letters p 569

Following the issue of two new hypertension guidelines in the United Kingdom this year, we need to consider how they have been received by their main audience—primary care.[1 2] Not too brightly, it seems.[3] Differences in recommendations cause some irritation, but the main source of disaffection is, once again, targets. The rule of halves—part of which states that only half of patients with high blood pressure reached target blood pressure—was first described more than 30 years ago and now seems redolent of a distant golden age of success.[4] With newer, more stringent targets, hypertension is controlled in only a third of our patients who receive treatment for it.[5] Viewed from general practice, it seems that most articles on hypertension—including this one—begin by reminding us of our failures. But is this justified?

While plenty of strong evidence shows the benefits of lowering blood pressure, targets—and their ceaseless revision—are less evidence based. Compelling evidence has existed since at least 1990 that increasing blood pressure is associated with an increasing risk of cardiovascular events, with no threshold to the relation.[6] More recent studies confirm, but do not alter, this observation.[7] So targets and thresholds are, and always have been, arbitrary. Reductions therefore seem to be based more on reinterpretation of existing evidence and less on new knowledge.

For individual patients, the odds of benefit from small differences in target blood pressure or lipid concentrations are low. In the hypertension optimal treatment trial, where nearly 19 000 patients were assigned randomly to three different blood pressure targets, no notable differences were seen in total mortality or cardiovascular outcome rates between groups.[7] This may have been because the achieved blood pressure measurements varied by less than 5 mm Hg between groups, but the clinical implications remain—small differences in targets make little difference to outcome. To reach current targets (systolic pressures of 140 mm Hg or 130 mm Hg), most patients will require up to four drugs to treat their high blood pressure, with many also taking aspirin and a statin (five or six drugs in total), but in terms of lowering cardiovascular risk, which is the purpose of treatment, the first drug provides most benefit.[8] Additional drugs have diminishing benefit but an equal or greater chance of side effects and interactions. Benefits from adding fifth and sixth drugs are scant.[8]

Current targets are low enough to be unachievable for most patients. Even in clinical trials, with protocol driven prescribing and willing participants, most fail to achieve systolic blood pressures below 140 mm Hg.[9] People older than 60—the bulk of patients with hypertension in general practice—and people with diabetes are even less likely to reach this.[10] Even if they do, the target for people with diabetes in the United Kingdom is now even lower, at 130 mm Hg.[2]

In most guidelines, the full versions make clear that evidence on targets is limited and their recommendations are unattainable in many patients. Most general practitioners, however, just do not have time to read the full guidelines—a problem that is compounded by the fact that guidelines are becoming ever longer. During the past decade, the length of commonly cited guidelines has increased sequentially (see figure on bmj.com). For those that do read them in detail,[3] new levels of unwarranted complexity are to be found such as recent recommendations by the British Hypertension Society to "lower total cholesterol by 25% or LDL cholesterol by 30% or to reach less than 4 mmol/l or 2 mmol/l respectively, whichever is greater."[2] Instead we rely on "user friendly" summaries and protocols emphasising (and failing to question) thresholds and targets without due reflection on the balance between what is desirable and what is achievable.

In practice, for most patients, blood pressure can be lowered until side effects are unacceptable or until people prefer to stop adding or experimenting with additional drugs. Guidelines are based on average findings from selected populations and the opinions of experts on acceptable levels of risk. Individual patients vary widely in their perception of acceptable risk and side effects.[11] Some will judge blood pressure lowering as vital and will tolerate inconvenience and discomfort to achieve a lowered cardiovascular risk. Others will not and we should accept this. Surprisingly, the patient's role in deciding his or her own blood pressure target receives scant attention in guidelines for hypertension. If targets have a role, it is as something to

P+ *A figure showing treatment guidelines for hypertension for general practice is on bmj.com*

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